In the Claims:

Claims 1-34 were pending at the time of the Office Action.

Claims 1-34 stand rejected.

No claims are canceled in this paper.

Claims 1, 10-12, 17, 20, 23-24, 27, 29, and 32 are amended in this paper.

Accordingly, claims 1-34 remain pending and are shown in the following complete listing of claims.

1.   (Currently Amended) A processor-readable medium comprising processor-executable instructions configured for:

identifying a plurality of respective states of applications having instructions executing on a processor, the respective states being identified over an interval of time;

receiving a plurality of instantaneous power consumption data—level indications over the interval of time from a power measurement circuit; and

correlating ones of the instantaneous power consumption data—level indications with corresponding ones of the identified states of the applicationsinstructions.

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2.   (Original) A processor-readable medium as recited in claim 1, wherein the identifying comprises:

interrupting the processor;

sampling a program counter of the processor;

scanning a lookup table to find an address indicated by the program counter; and

determining an instruction located at the address.

3.   (Original) A processor-readable medium as recited in claim 1, wherein the receiving comprises:

querying the power measurement circuit; and

receiving digital power readings from the power measurement circuit based on the querying.

4.   (Original) A processor-readable medium as recited in claim 1, wherein the receiving comprises receiving digital power readings from the power measurement circuit at preset time intervals.

5.   (Original) A processor-readable medium as recited in claim 1, wherein the correlating comprises associating with an identified instruction, a measured amount of power consumed during execution of the identified instruction on the processor.

6. (Original) A processor-readable medium as recited in claim 1, wherein the correlating comprises generating a power profile that includes a plurality of power consumption values and a plurality of identified instructions, wherein each power consumption value is associated with an identified instruction in the power profile.

7. (Original) A processor-readable medium as recited in claim 6, wherein the power profile is selected from the group comprising:

a table having pairs of data, each pair of data comprising a power consumption value and an identified instruction; and

a graph correlating power consumption values with identified instructions.

8. (Original) A processor-readable medium as recited in claim 1, wherein the power consumption data comprises power consumption values measured during execution of the instructions on the processor.

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9.   (Original) A processor-readable medium as recited in claim 1, wherein the processor is a component of a device selected from the group comprising:

an embedded mobile PDA (personal digital assistant) computing device operable by battery power;

a cell phone;

a smart phone;

a notebook computer;

a desktop PC (personal computer);

a workstation;

a server;

a mainframe computer; and

an Internet appliance.

10.   (Currently Amended) A processor-readable medium comprising processor-executable instructions configured for associating respective states of a software instruction executed on a processor with an corresponding indications of the amounts of power consumed instantaneously by executing the states of the software instruction.

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11. (Currently Amended) A processor-readable medium as recited in claim 10, wherein the associating comprises generating a power profile that matches the respective states of the software instructions executing on an embedded device over an interval of time with corresponding instantaneous power consumption values measured during execution of the software instructions over the interval of time.

12. (Currently Amended) A processor-readable medium comprising processor-executable instructions configured for:

measuring over time a plurality of instantaneous power consumption levels associated with states of software instructions executing on a target computing device;

converting analog power measurements into digital power measurements; and

transmitting the digital power measurements to a host computer.

13. (Original) A processor-readable medium as recited in claim 12, comprising further processor-executable instructions configured for storing the digital power measurements in a memory after the converting.

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14.   (Original) A processor-readable medium as recited in claim 12, wherein the transmitting comprises:

receiving a request for the digital power measurements from the host computer; and

transmitting the digital power measurements to the host computer based on the request.

15.   (Original) A processor-readable medium as recited in claim 12, wherein the transmitting comprises transmitting the digital power measurements to the host computer at preset time intervals.

16.   (Original) A processor-readable medium as recited in claim 12, wherein the target computing device is selected from a group comprising:

an embedded mobile PDA (personal digital assistant);

a cell phone;

a smart phone;

a notebook computer;

a desktop PC (personal computer);

a workstation;

a server;

a mainframe computer; and

an Internet appliance.

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17.   (Currently Amended) A method comprising generating a power profile that associates, over an interval of time, respective states of a software instructions with an amount of power instantaneously consumed during execution of the states of the software instructions.

18.   (Original) A method as recited in claim 17, wherein the execution of the software instruction is performed by a processor on a target computing device and the amount of power consumed is an amount of power consumed by the processor.

19.   (Original) A method as recited in claim 17, wherein the generating comprises:

identifying the software instruction executing on a processor;

receiving power consumption data from a power measurement circuit; and

correlating the power consumption data with the identified software instruction.

20.   (Currently Amended) A computer comprising a power profiler configured to identify states of software instructions executing on a processor, receive instantaneous power consumption data corresponding to the states of the software instructions, and correlate the instantaneous power consumption data with the states of the software instructions such that each the states of the software instructions is are associated with an instantaneous power consumption value indicating an amount of power consumed over time during the executing of the software instruction.

21.   (Original) A computer as recited in claim 20, further comprising a lookup table, the power profiler further configured to monitor a program counter on the processor and to identify the software instructions through the lookup table based on the program counter.

22.   (Original) A computer as recited in claim 20, further comprising a power profile having a plurality of power consumption values each paired with a corresponding software instruction to indicate an amount of power consumed during execution of the corresponding software instruction.

23.   (Currently Amended) A computer comprising a power profiler configured to generate a power profile that correlates, over time, states of respective software instructions with instantaneous power consumptioned levels during execution of the software instructions.

24.   (Currently Amended) A computer comprising:

means for identifying states of applications having instructions executing on a processor;

means for receiving instantaneous power consumption data from a power measurement circuit; and

means for generating a power profile that correlates the instantaneous power consumption data with the identified states of the instructions.

25. (Original) A computer as recited in claim 24, wherein the means for identifying instructions comprises:

means for interrupting the processor;

means for sampling a program counter of the processor; and

means for determining an instruction based on the program counter.

26. (Original) A computer as recited in claim 24, wherein the means for receiving comprises:

means for querying the power measurement circuit; and

means for receiving digital power readings from the power measurement circuit based on the querying.

27. (Currently Amended) A power measurement circuit comprising:

means for measuring instantaneous power consumption levels associated with states of software applications having instructions executing over time on an embedded device;

means for converting analog power measurements of the instantaneous power consumption levels into digital representationspower measurements; and

means for transmitting the digital power measurementsrepresentations to a host computer in response to a query from the host computer.

28. (Original) A power measurement circuit as recited in claim 27, further comprising means for storing the digital power measurements.

29. (Currently Amended) A computer comprising:

a processor;

at least one application ~~instructions~~ stored in a memory and executable on the processor; and

a power measurement circuit configured to measure, over time, instantaneous power consumption levels associated ~~by the processor during~~ with execution of at least one state of the application ~~each instruction~~.

30. (Original) A computer as recited in claim 29, further comprising an analog to digital converter integrated as part of the power measurement circuit and configured to convert analog power signals to digital power consumption data.

31. (Original) The computer of claim 29 implemented as a device selected from the group comprising:

an embedded mobile PDA (personal digital assistant);

a cell phone;

a smart phone;

a notebook computer;

a desktop PC (personal computer);

a workstation;

a server;

a mainframe computer; and

an Internet appliance.

32.   (Currently Amended) A system comprising:

a power profiler configured to correlate, over time, an at least one identified state of one of a plurality of software instruction applications with an amount of instantaneous power consumption leveled during execution of the identified state of the software instruction application;

a lookup table having information for identifying the identified software instruction application; and

a power profile being generated by the power profiler and having associating instantaneous power consumption values over time and with the identified states of the software instruction applications, each with the instantaneous power consumption values being paired with a corresponding identified states of the software instruction applications.

33.   (Original) A system as recited in claim 32, further comprising:

a power measurement circuit configured to measure the amount of power consumed during execution of the identified software instruction; and

an analog to digital converter configured as part of the power measurement circuit to convert analog power consumption measurements into digital power consumption data.

34.   (Original) A system as recited in claim 33, wherein the power measurement circuit is a component of a target computing device on which the identified software instruction is executed.